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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Peter Frank

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EXAMINER

HOWELL, DANIEL W

ART UNIT

PAPER NUMBER

3726

NOTIFICATION DATE

DELIVERY MODE

03/31/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/551,996	Applicant(s) FRANK, PETER	
	Examiner Daniel W. Howell	Art Unit 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. These introductory comments should be considered as part of the rejection below and the Response to Arguments. While claim 1 as examined for the first Office action merely stated that the adjustment “can be carried out by measuring...,” it is noted that claim 1 has been amended to set forth adjustment that “occurs by measuring...” As originally filed, this subject matter was basically only somewhat of a functional statement, but, as amended, the adjustment is now an actual method step. As will be seen below, this introduces a new problem with claims 1 and 15. Nevertheless, on page 12 of the arguments, Applicant writes that “if one uses a mechanical means, such as calipers, there is clearly insufficient access to the proposed adjusting pin.” It will immediately be pointed out that claim 1 doesn't set forth anything about mechanical means or calipers. It is also noted that this is Applicant's only argument for allowability of claims 1 and 15 over the DE '232 reference. The measurement can be made by other means, such as non-contact items incorporating a camera. Noting that figures 1 and 3 of EP '616 have a reference line and distance indicia on the insert holders, this indicia would also constitute means for measuring the distance between the insert and adjusting pin. Lines 44-67 of column 1 of Schuerfeld '169 disclose a prior art measuring system incorporating a camera for determining the location of a cutting edge, and the actual invention of Schuerfeld '169 discloses a second system incorporating a camera for determining the location of a cutting edge. Figures 7-8 of Turnipseed et al '517 show a variation camera arrangement in figure 7-8, having appropriate crosshairs that would aid in making any necessary measurements. Other such camera systems for monitoring and measuring the location of a cutting edge are known to those skilled in the art.

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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3. Claims 1-2 and 4-28 are rejected under 35 USC 101 as being nonstatutory. These claim(s) are directed to neither a “process” nor a “machine,” but rather they embrace or overlap two different statutory classes of invention set forth in 35 USC 101, which is drafted so as to set forth the statutory classes of invention in the alternative only. See *Ex parte Lyell*, 17 USPQ2d 1548. Independent claims 1 and 15 are directed to a “Base body for a drilling tool...” and “A drilling tool...,” respectively. Those items constitute machines. Claims 1 and 15 have been amended to set forth the step of “occurs by measuring a radial deviation between a defined point of the cutting insert holder or the cutting insert accommodated on the cutting insert holder and the adjusting pin.” By amending claims 1 and 15 to state that the adjustment “occurs” by this step, claims 1 and 15 now set forth a process. It is improper for the claims to set forth both a method and a process. Additionally, claim 27 states that the measurement is made by a “mechanical measurement means.” This further limits the method step added to claim 1, and as such also constitutes the improper combination of method and apparatus claims.

4. Claims 1-2 and 4-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 15, and 27 improperly set forth both method and apparatus limitations, and as such the scopes of these claims can not be determined. Note that claims 1 and 15 initially set forth machines (Base body and drilling tool), but the “occurs by” limitation in claims 1 and 15 constitutes a method of measuring.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-2, 4, 7-8, 10, 14, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over German 2,746,232 in view of EP 344,616. Regarding German '232, body 1 has four radial mostly U-shaped slots for reception of four insert holders 6, 7. A pin 4 is located on the tool axis, and each holder 6, 7, has a screw 15 that pushes against this pin to adjust the cutter holders radially. As seen from figure 2, the holders have projections that slide in the radial slots 3. Regarding the method step in claim 1 for the measurement, EP '616 shows a similar device having a body 2 having threaded holes 25 for reception of screws/cylindrical pins 7. Two cutting insert holders 5 have elongated holes 17 through which the screws 7 extend in order to secure the holders to the body. Each holder 5 has a screw 10 that pushes against screw/pin 7 as it is rotated, in order to adjust the holder radially. As seen from figures 1 and 3, the body 2 is provided with a reference line, and the inserts are provided with ruler lines indicating the position of adjustment, which may also be a representation of the deviation between the insert holder or insert and the adjusting pin. Regarding claim 27, the indicia of EP '616 constitutes mechanical measurement means. It is considered to have been obvious to have provided German '232 with the measurement indicia lines as shown by EP 616 in order to properly locate the insert for the desired bore hole size. Regarding claim 10, the retaining screws 16, 17, of DE '232 have a variable retaining force, as it may be tightened between tightly or loosely. Regarding claim 28, it is considered to have been obvious to have made the adjusting pin 4 of DE '232 of a long enough length to aid in placement of the pin in the hole shown in figure 3, including to a length that it protrudes past a portion of an upper surface of the insert holder.

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2. Claims 1-2, 4, 7-8, 10, 14, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over German 2,746,232 in view of Schuerfeld 5,716,169. Regarding German '232, body 1 has four radial mostly U-shaped slots for reception of four insert holders 6, 7. A pin 4 is located on the tool axis, and each holder 6, 7, has a screw 15 that pushes against this pin to adjust the cutter holders radially. As seen from figure 2, the holders have projections that slide in the radial slots 3. Regarding the method step in claim 1 for the measurement, lines 44-67 of column 1 of Schuerfeld '169 disclose a prior art measuring system incorporating a camera for determining the location of a cutting edge, and the actual invention of Schuerfeld '169 discloses a second system incorporating a camera for determining the location of a cutting edge. Regarding claim 27, the camera systems of Schuerfeld constitute mechanical measurement means. It is considered to have been obvious to have provided German '232 with the camera measurement systems as taught by Schuerfeld in order to properly locate the insert for the desired bore hole size. Regarding claim 10, the retaining screws 16, 17, of DE '232 have a variable retaining force, as it may be tightened between tightly or loosely. Regarding claim 28, it is considered to have been obvious to have made the adjusting pin 4 of DE '232 of a long enough length to aid in placement of the pin in the hole shown in figure 3, including to a length that it protrudes past a portion of an upper surface of the insert holder.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over German '232 in view of Schuerfeld '169 as applied to claim 1 above, and further in view of Healy (2204855). Depending on the workpiece requirements, it is conventional to provide an appropriate number of cutting inserts. Healy shows a boring head having three cutting holders/inserts 20, 21. In view of this teaching of Healy, it is considered to have been obvious to have provided German

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‘232 with three cutting inserts and holders depending on what it needed for the particular workpiece.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over German ‘232 in view of EP ‘616 as applied to claim 1 above, and further in view of Healy (2204855).

Depending on the workpiece requirements, it is conventional to provide an appropriate number of cutting inserts. Healy shows a boring head having three cutting holders/inserts 20, 21. In view of this teaching of Healy, it is considered to have been obvious to have provided German ‘232 with three cutting inserts and holders depending on what it needed for the particular workpiece.

5. Applicant's arguments filed 1-12-11 and 10-13-10 have been fully considered but they are not persuasive. As discussed above, the amendments to claims 1 and 15 have changed those claims to non-statutory claims. While those claims are non-statutory, it is Office policy to treat such claims as amended, such that the rejection has been altered to meet that method claim limitation that has been added to claims 1 and 15. Applicant is reminded that several claims were indicated as constituting allowable subject matter in the first Office action, such that the Examiner would allow claims that eliminate the 35 USC 101 rejection and conform to the allowable subject matter set forth in paragraph 10 of the first Office action. Claims submitted in the future not amended in that manner might be deemed to constitute new considerations.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning the content of this communication from the examiner should be directed to Daniel Howell, whose telephone number is 571-272-4478. The examiner's office hours are typically about 10 am until 6:30 pm, Monday through Friday. The examiner's supervisor, David Bryant, may be reached at 571-272-4526.

In order to reduce pendency and avoid potential delays, Group 3720 is encouraging FAXing of responses to Office actions directly into the Group at FAX number to 571-273-8300. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a USPTO deposit account. Please identify Examiner Daniel Howell of Art Unit 3726 at the top of your cover sheet.

/Daniel W. Howell/

Primary Examiner, Art Unit 3726